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RP250

Modeling Guitar Processor

DigiTech®

User's Manual

The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

ELECTROMAGNETIC COMPATIBILITY

This unit conforms to the Product Specifications noted on the **Declaration of Conformity**. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.

WARNING FOR YOUR PROTECTION READ THESE INSTRUCTIONS:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Refer all servicing to to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

DECLARATION OF CONFORMITY

Manufacturer's Name:	DigiTech
Manufacturer's Address:	8760 S. Sandy Parkway Sandy, Utah 84070, USA

declares that the product:

Product name:	RP250
Note:	Product name may be suffixed by the letters EX, EU, JA, and UK.
Product option:	all (requires Class II power adapter that conforms to the requirements of EN60065, EN60742, or equivalent.)

conforms to the following Product Specifications:

Safety:	IEC 60065 (1998)
EMC:	EN 55013 (2001 + A1) EN 55020 (1998)

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 72/23/EEC and the EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.

Vice-President of Engineering-MI
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: August 15, 2006

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Table of Contents

Section One - Introduction

Getting Acquainted 1
Included Items 1
About the RP250 2
Performance Mode 2
Bypass Mode 2
Tuner Mode 2
Tone Library Knob 4
Effects Library Knob 4
Master Level Knob 4
X-Edit™ Editor/Librarian 4
Presets 5
A Guided Tour of the RP250 6
Front Panel 6
Rear Panel 10
Getting Started 12
Making Connections 12
Mono Operation - Amplifier 12
Stereo Operation 13
Applying Power 15

Section Two - Editing Functions

Editing/Creating Presets 16
Storing/Copying/Naming a Preset 17

Section Three - Models and Parameters

About the Models 19
Model Definitions 20
Pickup 20
Wah 20
Compressor 21
Distortion 21
Amplifier 23
Cabinet 25
EQ 26
Noise Gate 26
Chorus/FX 27
Chorus 27
Flanger 28
Phaser 28
Vibrato 29
Rotary Speaker 29
VibroPan 30
Tremolo 30
Panner 30
Envelope Filter 31
AutoYa™ 31
YaYa™ 31
Step Filter 32
DigiTech Whammy™ 32
Pitch Shift 33
Detune 33
Intelligent Pitch Shifting (IPS) 34
Delay 35
Reverb 36

Section Four - Other Functions

Drum Machine....38
Aux Input....39
Expression Pedal....39
Factory Reset....40
Expression Pedal Calibration....41

Section Five - Appendix

Specifications....42
Expression Pedal - Assignable Parameters....44
Tone LIbrary....46
Effects Library....47
Preset List....48

Warranty

We at **DigiTech®** are very proud of our products and back up each one we sell with the following warranty:

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.
2. DigiTech warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.
3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained from DigiTech by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.
4. Proof-of-purchase is considered to be the burden of the consumer.
5. DigiTech reserves the right to make changes in design, or make additions to, or improvements upon this product without incurring any obligation to install the same on products previously manufactured.
6. The consumer forfeits the benefits of this warranty if the product's main assembly is opened and tampered with by anyone other than a certified DigiTech technician or, if the product is used with AC voltages outside of the range suggested by the manufacturer.
7. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall DigiTech or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

NOTE: The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product or operating system since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

Section 1 - Introduction

Getting Acquainted

Congratulations on your purchase of the RP250. You now have an incredibly advanced modeling guitar processor that can keep up with your creative impulses and even increase them. Armed with DigiTech®'s patented AudioDNA2® custom audio DSP chip, the RP250 gives you a huge selection of tones and effects, right at your fingertips. When you easily dial up a tone or effect from the Tone Library or the Effects Library, you'll appreciate the accuracy in each model, and the dynamic interaction in each tone. Add USB support for computer recording and a built-in drum machine, and you have the RP250: the key to unlock your creative potential.

Included Items

Before you get started, please make sure that the following items have been included:

- **RP250**
- **PS0913B Power Supply**
- **Warranty Card**

The utmost care was taken while your RP250 was being manufactured. Everything should be included and in perfect working order. If anything is missing, contact the factory at once. Please help us become acquainted with you and your needs by completing your warranty card or registering online at www.digitech.com. It is your safeguard should a problem arise with your RP250.

Disclaimer: DigiTech, Lexicon, Whammy, YaYa, AutoYa, and Johnson Amplification are trademarks of Harman International Industries, Inc. Other product names modeled in this product are trademarks of their respective companies that do not endorse and are not associated or affiliated with DigiTech or Harman International Industries, Inc. They are trademarks of other manufacturers and were used merely to identify products whose sounds were reviewed in the creation of this product.

About the RP250

Performance Mode

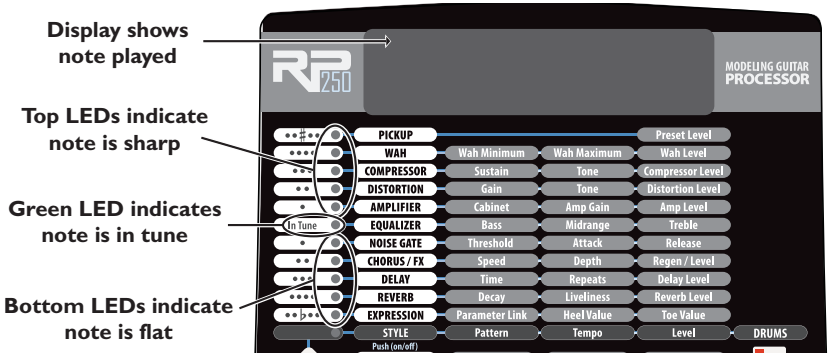
When you first apply power to the RP250, it powers up in Performance mode. Performance mode provides access to all of the presets within the RP250 via the **Up** and **Down Footswitches**. **Knob 1** selects a tone from the Tone Library, **Knob 2** selects an effect from the Effects Library, **Knob 3** adjusts the Effects Level, and **Knob 4** adjusts the Master Level (volume).

Bypass Mode

The RP250 presets can be bypassed via a true analog bypass circuit for a clean, unprocessed guitar signal. To bypass the RP250, press both **Footswitches** simultaneously. The Display reads BYPASS indicating the preset is bypassed. Press either **Footswitch** to exit Bypass and return the RP250 to the last preset used.

Tuner Mode

The Tuner in the RP250 allows you to quickly tune or check the tuning on your guitar. Enter Tuner mode by pressing and holding both **Footswitches** simultaneously. The Display briefly shows TUNER indicating that you are in Tuner mode. To begin tuning, play a note on your guitar (a harmonic at the 12th fret usually works best). The Display shows the note being played. The Matrix LEDs indicate whether you are sharp or flat. The top 5 red LEDs indicate the note is sharp and should be tuned down. The bottom 5 red LEDs indicate the note is flat and should be tuned up. The center green LED indicates the note is in tune. The output is muted in Tuner mode. The Expression Pedal controls the guitar volume while tuning. Exit tuner mode by pressing either **Footswitch**.



In Tuner mode, you can change your tuning reference. The default factory setting is A=440 Hz (displayed as A-440). Rotating **Knob 1** selects alternate dropped tunings. Alternate tunings are A = Ab, A = G, and A = Gb. The display window briefly flashes the current tuning reference.

Tone Library (Knob 1)

In Performance mode, this knob selects a variety of genre-based amp tone defaults ranging from Blues to Metal to Country. Behind the scenes, the Compressor, Distortion, Amp/Cabinet model, and EQ are configured to create a specified tone with a single click of this knob. You can further refine the sound by editing the preset (see *Editing/Creating Presets* on page 16). Changing between different Tone Library defaults does not change the Chorus/FX, Delay or Reverb, letting you experiment with different amp styles quickly in the context of the current effect chain.

Effects Library (Knob 2)

In Performance mode, this knob selects a variety of post-amplifier model effect chains (Chorus, Chorus + Delay, Delay + Reverb, etc.). You can further refine the sound by editing the preset (see *Editing/Creating Presets* on page 16). Changing between different Effects Library defaults does not change the Compressor, Distortion, Amp/Cabinet model, and EQ settings, letting you experiment with different effect chains quickly in the context of the current amp tone.

Effects Level (Knob 3)

In Performance mode, this knob changes the relative level of the post-amp effects (Chorus/FX, Delay, and Reverb). This can be thought of as an effects mix control, where turning this knob clockwise increases the level of these effects and turning it counter-clockwise decreases the level of these effects.

Master Level (Knob 4)

This knob controls the overall output volume of all of the RP250 (Presets, Drum Machine, and USB playback).

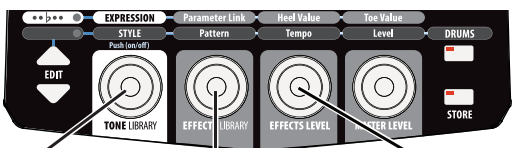
X-Edit™ Editor/Librarian

You can edit your RP250 with your computer, using the X-Edit™ Editor/Librarian. Download X-Edit™, USB drivers, and documentation from www.digitech.com. Open the readme file for detailed instructions about installing and using this software.

Presets

Presets are named and numbered locations of programmed sounds which reside in the RP250. Presets are recalled with the Footswitches. The active effects in each preset are indicated by lighted LEDs in the Effect Matrix. The RP250 comes with 60 User presets (1-60) and 60 Factory presets (61-120). The User presets are locations where your creations may be stored. The Factory presets do not allow you to store any changes to them. From the factory, the 60 User presets are exact duplicates of the 60 Factory presets. This allows you to create your own presets without losing the sounds that came with the RP250.

The Tone Library knob, Effects Library knob, and Effects Level knob make it easy to quickly load preset tones, effects, and effects chains.



1. Select a tone with the Tone Library knob

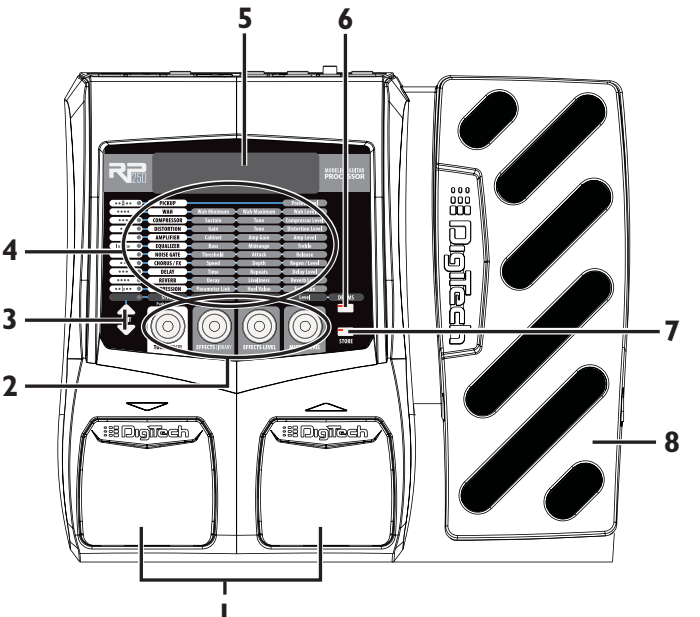
2. Select an effect or effects chain with the Effects Library knob

3. Adjust the effects level with the Effects Level knob

To learn about storing changes to presets, see page 17.

A Guided Tour of the RP250

Front Panel



1. Footswitches

These two Footswitches are used to select presets, access the Tuner, or bypass the RP250. The Footswitch on the right will select the next preset up, and the Footswitch on the left will select the next preset down. Pressing both Footswitches together will bypass the currently selected preset. Pressing and holding both Footswitches will access the Tuner. Press either Footswitch to exit Bypass or Tuner mode.

2. Knobs 1-4

These four knobs perform various functions, depending on which mode is currently active and what (if anything) is being edited. The functions are listed below:

Tone Library (Knob 1)

1. In Performance mode, this knob selects from a library of preset amp tones. (See page 46 for a list of preset amp tones.)
2. When editing a preset, this knob changes the Amp or Effect model for the selected row.
3. When editing an Effect row, press this knob to turn on or bypass the effect.
4. When the Drums row is selected, this knob selects the first pattern of each drum pattern style (Rock, Blues, Jazz, etc.).

Effects Library (Knob 2)

1. In Performance mode, this knob selects from a library of preset effect configurations. (See page 47 for a list of preset effect configurations.)
2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
3. When the Drums row is selected, this knob selects the different drum patterns available.
4. When the Expression row is selected, this knob selects which parameter is assigned to the Expression Pedal.

Effects Level (Knob 3)

1. In Performance mode, this knob adjusts the overall level of post amp model effects (Chorus/Mod, Delay, and Reverb).
2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
3. When the Drums row is selected, this knob adjusts the playback Tempo of the drum machine.
4. When the Expression row is selected, this knob selects the heel value for the Expression Pedal

Master Level (Knob 4)

1. In Performance mode, this knob adjusts the output level of the RP250.
2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
3. When the Drums row is selected, this knob adjusts the drum machine playback level.
4. When the Expression row is selected, this knob sets the toe value for the Expression Pedal.

3. Edit buttons

These buttons navigate up and down the matrix, selecting the row of parameters which the knobs will edit. Press one of these buttons to step through the Effect rows, and return to the preset name display. See page 16 for more information about editing presets.

4. Matrix

The matrix provides information regarding the current preset and parameter edit functions. In Performance mode, the LEDs running down the left side of the Matrix provide a visual indication of which effects are in use for the currently selected preset. While editing a preset, the LEDs indicate the Effect row currently selected for editing. In Tuner mode, the LEDs indicate whether the note played is sharp, flat, or in tune.

5. Display

The Display provides information for different functions depending on the mode that has been selected. In Performance mode, the Display will show the currently selected preset name and number. In Edit mode, the Display will show the name and value of the parameter being adjusted. In Tuner mode, the Display will show the note played.

6. Drums

The Drums button is used to turn on and off the RP250's built-in drum machine. When the Drums button is turned on, the Drums LED lights and the selected drum pattern plays continuously. Select the Drums row using the **Edit** buttons and use **Knobs 1-4** to change the style, pattern, tempo, and level of the drum machine. See page 38 for more information about the drum machine and a list of patterns.

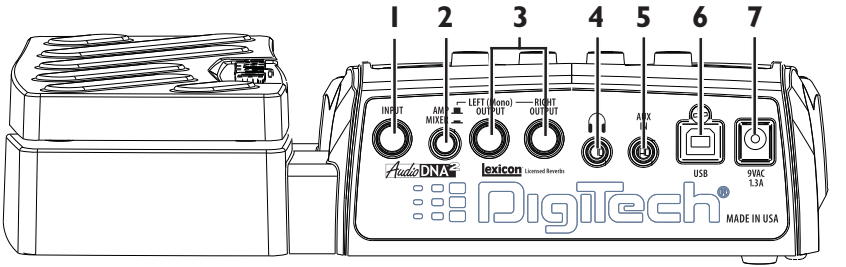
7. Store

The Store button is used to save your custom edits to the user presets. See page 17 for more information about storing presets.

8. Expression Pedal

The Expression Pedal provides real-time control of the RP250's Volume, Wah, or the assigned effect parameter. Almost every parameter is available for Expression Pedal control. The Expression Pedal is equipped with a V-switch that activates or deactivates the Wah feature when you apply extra pressure to the toe. See page 20 for more information about Wah models; see page 41 to learn about adjusting V-switch sensitivity and calibrating the Expression Pedal; refer to pages 44-45 for a list of parameters you can link to the Expression Pedal.

Rear Panel



1. Input
Connect your instrument to this high-impedance TS input.

2. Amp / Mixer
This button optimizes the RP250's outputs for use when plugged into a guitar amp or a mixer/ recording device. When set to Mixer ("In" position), speaker compensation is turned on and the outputs are optimized for connecting to a mixer, recording device or headphones. When set to Amp ("Out" position), the outputs are optimized for running directly in to the input of a guitar amp.

3. Left (Mono) and Right Outputs
Connect the Left (Mono) output to the input of a single amplifier (or mixer input) for mono operation. Connect the Left and Right outputs to the inputs of 2 amplifiers (or 2 mixer channels) for stereo operation.

4. Headphones
Connect a pair of stereo headphones to this 1/8" jack. For proper frequency response, the Amp/Mixer switch should be set to Mixer ("In" position) when using headphones.

Note: The Headphones output can have either a mono or stereo signal, depending on what 1/4" outputs are connected. If neither (or both) 1/4" outputs are connected, the Headphones output will be in stereo. If a cable is connected to the Left (Mono) 1/4" output only, the Headphones output will be in mono.

5. Aux In
Connect the headphone output of an MP3 or CD player using a stereo 1/8" cable to this 1/8" stereo TRS jack for rehearsing with your favorite pre-recorded material. Adjust the output level of your playback device and the RP250's **Master Level** knob for the proper volume balance.

6. USB Port
The USB port is for connecting the RP250 to a computer and serves two purposes: (1) for use with the downloadable X-Edit™ Editor/Librarian software, and (2) for streaming audio to and from the computer. Audio streaming is limited to 2 channels up and 2 channels down from the computer at 44.1kHz, 16 bit and 24 bit. A utility panel in the Editor/Librarian controls the direct/playback mix with any recording software the RP250 is connected to.

Note: You can download the X-Edit Editor/Librarian software and USB drivers at www.digitech.com.

7. Power Input
Connect only the DigiTech® PS0913B power supply to this jack.

Getting Started

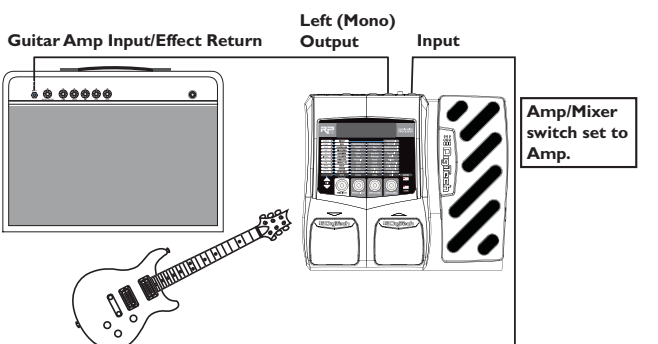
Making Connections

There are several different connection options available with the RP250. Before connecting the RP250, make sure that the power to your amplifier and the RP250 is turned off. There is no power switch on the RP250. To turn the RP250 on or off, connect or disconnect the included PS0913B power supply from the Power Input jack.

Mono Operation - Amplifier

Connect your guitar to the **Input** of the RP250. Connect a single mono instrument cable from the **Left (Mono)** output of the RP250 to the instrument input or effect return on your amplifier. Set the **Amp/Mixer** switch to Amp.

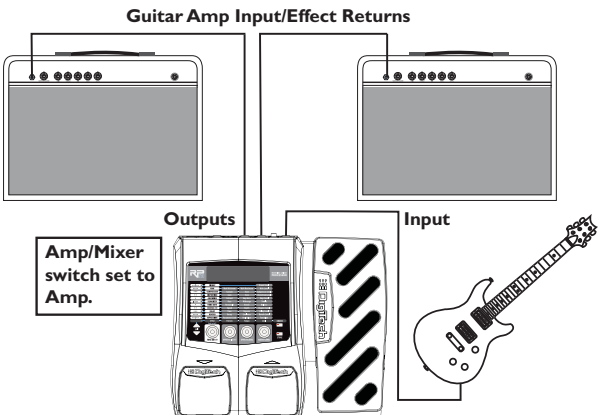
NOTE: When using a guitar amp, it may be best to connect the guitar to the Input of the RP250 and the Output of the RP250 to the effect return of the amplifier.



Stereo Operation

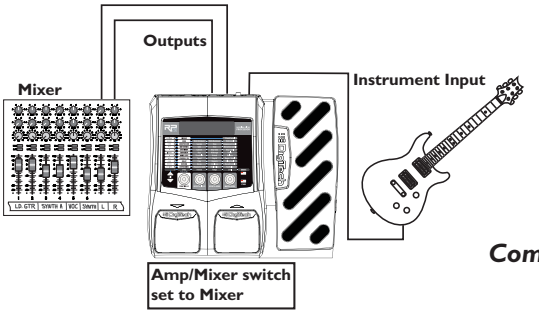
For stereo operation connect the guitar to the **Input** of the RP250. Connect one cable to the RP250's **Left (Mono)** output, and another cable to the RP250's **Right** output. Connect one cable to the input of one amplifier, channel of a mixer, or power amp. Connect the second cable to a second amplifier, second channel of a mixer, or power amp. If connecting to a mixing console, set the pan controls of the mixer channels hard left and right in order to retain stereo separation. If connecting to a mixer, set the **Amp/Mixer** switch to Mixer. If connecting to two amplifiers, set the **Amp/Mixer** switch to Amp.

Stereo Amp Setup

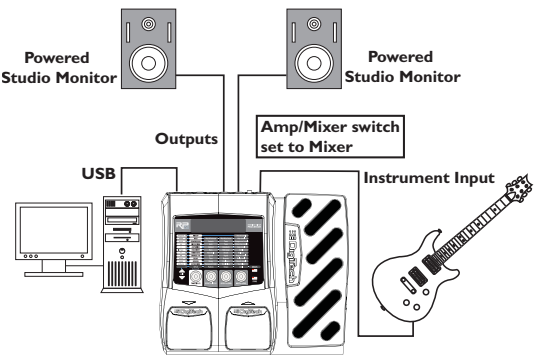


NOTE: When using a guitar amp, it may be best to connect the guitar to the Input of the RP250 and the Output of the RP250 to the effect return of the amplifier.

Stereo Mixer Setup



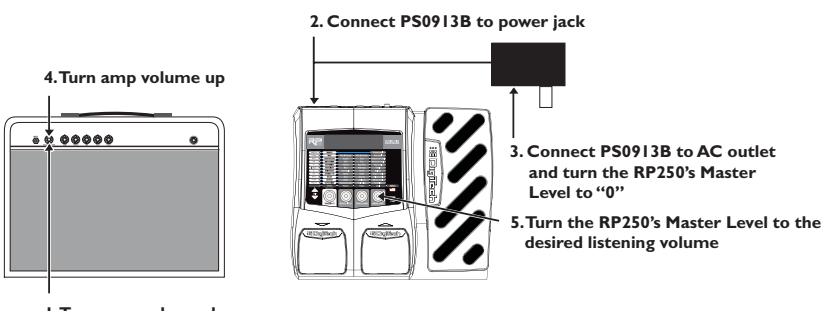
Computer Recording Setup



Applying Power

Before applying power to anything, set your amp(s) to a clean tone and set the tone controls to a flat EQ response (on most amps, this would be 0 or 5 on the tone controls). Then follow the steps listed below.

1. Turn the amp volume all the way down.
2. Connect the plug of the PS0913B power supply to the power jack on the rear panel of the RP250.
3. Connect the other end of the PS0913B power supply to an AC outlet. Turn the RP250's **Master Level** knob (**Knob 4**) down to "0".
4. Turn the power of your amplifier(s) to the on position and adjust the volume(s) to a normal playing level.
5. Gradually increase the RP250's **Master Level** knob to achieve the desired volume.



Section Two - Editing Functions

Editing/Creating Presets

The RP250 is designed to make preset editing and creation easy and intuitive. When creating your own sound, you must first start with an existing preset. Note that the preset you begin with doesn't have to be in the memory location you intend to have it reside, since you can store it to any User preset location during the store procedure.

The easiest way to start is by using the **Tone Library** and **Effects Library** knobs. The **Tone Library** knob will let you select from a variety of pre-programmed amp/distortion tones (see page 46) based on different musical styles. The **Effects Library** knob will then let you select from a palette of effects chains (see page 47), from simple delays to full multi-effect signals with modulation, delay and reverb. Use the **Effects Level Knob** to easily increase or decrease the Chorus/FX, Delay and Reverb levels if desired. Using these three controls should get you close to a sound you are after. From there you can then use the **Edit** buttons to navigate through the individual effects for some fine tune edits.

To edit and create a preset:

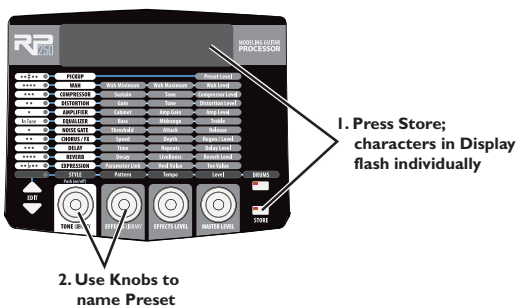
1. Use the **Footswitches** to select the preset you wish to edit.
2. If you are trying to find something different from the existing presets, begin by using the **Tone Library**, **Effects Library** and **Effects Level** knobs to get close to a sound you want.
3. Press the **Edit Up/Down** buttons to begin selecting the individual Effects rows to edit their parameters.
4. To bypass or enable an Effect row, press the **Tone Library** knob.
5. Use **Knobs 2-4** to modify the effects' parameter settings.
6. Select the **Pickup** row and use **Knob 4** to adjust the **Preset Level**.

Anytime a stored value within a preset is changed, the **Store** button LED lights up. This indicates that you need to store the changes. Changing presets, or turning the power off before storing any changes, erases any changes made and the RP250 will revert to the stored values for the preset.

Storing/Copying/Naming a Preset

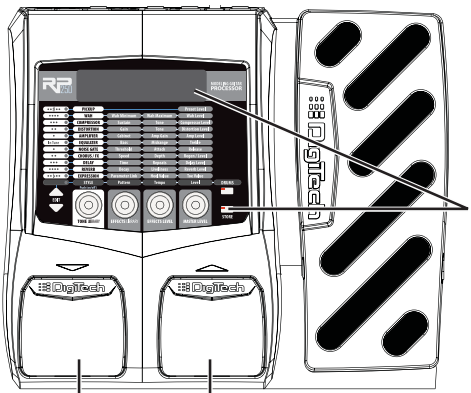
Once the preset has been modified to your liking, you may store your settings to any of the 60 User preset locations (presets 1-60). The following steps outline the procedure for storing changes to a preset or copying a preset to a different location:

1. Press the **Store** button once. The **Store** button LED blinks and the first character in the Display flashes, indicating that you can now name your custom creation.
2. Use **Knob 1** to select the alpha-numeric character and **Knob 2** to select the next character location.



3. Once the desired name is shown in the display, press the **Store** button again to enter the second stage of the storing process. The Display begins to flash.

4. Select the User preset location where your new sound will reside using the **Up** and **Down Footswitches**. The display alternates between showing the preset name and User preset number about to be overwritten.



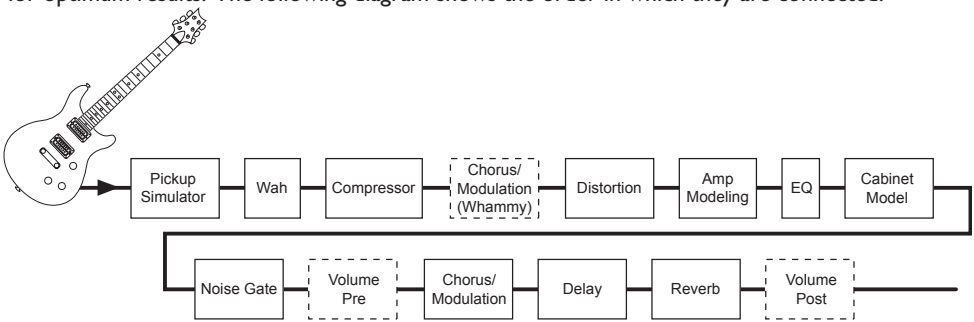
5. Press the **Store** button again to save the changes.

The procedure for copying one preset to another preset location is the same. Use the **Footswitches** to select the preset that you want to copy, then follow steps 1-4 for storing a preset as described above. Press either **Edit** button at any time to abort the Store procedure.

Section Three - Models and Parameters

About the Models

The RP250 can be thought of as several different "virtual" amplifiers and individual, high-tech stompboxes in a single programmable package. With stompboxes, the order in which they are connected affects the overall sound. The RP250 has placed the Amp and Effect models in an order for optimum results. The following diagram shows the order in which they are connected.



Model Definitions

Each Amp and Effect model within the RP250 can be programmed to suit your personal taste and application. Understanding how these components alter the sound, and how each parameter alters the effect, will help you achieve the sound you are looking for. The following overview of the RP250's effects outlines what each effect and parameter does.

Pickup

The **Pickup Simulator** provides the thick tone of a humbucker pickup to a guitar with single coil pickups, or the bright, edgy sound of a single coil pickup to a guitar with a humbucker. This gives you the best of both worlds without having to change guitars during a performance.

Pickup Model - Knob 1 selects the Pickup model to be simulated. Values include: SC>HB (gives a single coil pickup the warm tone of a humbucker), and HB>SC (gives a humbucker the unique sound of a single coil). Press this knob to turn Pickup modeling on and off.

Preset Level - **Knob 4** adjusts the preset's level.

Wah

Wah is an effect controlled by an Expression Pedal making the guitar sound as if it's saying "Wah."

Wah Model - Knob 1 selects the Wah model. Values include: FULRNG (DigiTech® Full Range Wah sweeps the entire spectrum of audible frequencies), CRYWAH (Cry Wah is a traditional sounding Wah), and CLYDE (based on a Vox® Clyde McCoy™ Wah). Press this knob to turn Wah models on and off.

Wah Minimum - Knob 2 adjusts the Wah Pedal Minimum. Ranges from 0 (toe up) to 99 (toe down).

Wah Maximum - Knob 3 adjusts the Wah Pedal Maximum. Ranges from 0 (toe up) to 99 (toe down).

Wah Level - Knob 4 adjusts the Wah Level. Ranges from 0dB to +12dB.

Compressor

A **Compressor** is used to increase sustain, tighten up guitars, and prevent the signal from clipping the input of other effects. It sets a maximum boundary for the strength of a signal.

Comp Model - Knob 1 selects one of two Compressor models: DIGCMP (DigiTech® Compressor) or CSCOMP (Based on a Boss® CS-2 Compressor/Sustainer). Press this knob to turn the Compressor on and off.

Sustain - Knob 2 adjusts the amount of sustain. Ranges from 0 to 99.

Tone/Attack - Knob 3 adjusts the tone for the DigiTech Compressor, or attack for the Boss CS-2. Ranges from 0 to 99.

Compressor Level - Knob 4 adjusts the Level from the Compressor. Ranges from 0 to 99.

Attack *(X-Edit™ only for DigiComp)* - Adjusts the amount of time the Compressor takes to respond to a signal that exceeds the threshold. Ranges from 0 to 99.

Distortion

The RP250 models the tones of 13 popular distortion stompboxes, each of which can be tweaked and modified, just like the real thing.

Distortion Model - Knob 1 selects one of 13 Distortion models. Press this knob to turn the Distortion on and off.

SCREAM - Based on an Ibanez® TS-9
808 - Based on an Ibanez TS-808 Tube Screamer
ODDRIV - Based on a Guyatone® Overdrive OD-2
DOD250 - Based on a DOD® 250 Overdrive/Preamp
RODENT - Based on a Pro Co RAT™
MXDIST - Based on an MXR® Distortion +
DSDIST - Based on a Boss® DS-1™ Distortion
GRUNGE - DigiTech® Grunge
ZONE - Based on a Boss MT-2 Metal Zone®
DEATH - DigiTech Death Metal
GONKLT - Based on a DOD Gonkulator Ring Mod
FUZZ - Based on an Arbiter® Fuzz Face™
BIG PI - Based on an Electro-Harmonix® Big Muff Pi®

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Knobs 2, 3, and 4 have the following functions for the various Distortion models:

Dist. Model	Knob 2 (Gain)	Knob 3 (Tone)	Knob 4 (Level)	P4 (X-Edit™ only)	P5 (X-Edit only)	P6 (X-Edit only)
SCREAM	Drive	Tone	Level	--	--	--
808	Overdrive	Tone	Level	--	--	--
ODDRIV	Drive	--	Level	--	--	--
DOD250	Gain	--	Level	--	--	--
RODENT	Distortion	Filter	Level	--	--	--

Dist. Model	Knob 2 (Gain)	Knob 3 (Tone)	Knob 4 (Level)	P4 (X-Edit™ only)	P5 (X-Edit only)	P6 (X-Edit only)
MxDIST	Distortion	--	Output	--	--	--
DSDIST	Gain	Tone	Level	--	--	--
GRUNGE	Grunge	Face	Loud	Butt	--	--
ZONE	Gain	Mid Level	Level	Low	Mid Freq	High
DEATH	Low	Mid	Level	High	--	--
GONKLT	Gunk (Dist Gain)	Smear (Ring Mod Level)	Suck (Dist Level)	Heave (Output Lvl)	--	--
FUZZ	Fuzz	--	Volume	--	--	--
BIG PI	Sustain	Tone	Volume	--	--	--

Amplifier

Amp Modeling is a technology which applies the tone of several popular modern and vintage amps. Amp Modeling also includes an acoustic guitar simulation.

Amp Model - Knob 1 selects one of the classic, modern, and DigiTech custom Amp models. Press this knob to turn Amp and Cabinet modeling on and off. Note that when you select an Amp model, the default Cabinet model is automatically selected. You can, however, change the Cabinet model after selecting an Amp model.

57CHMP - Based on a '57 Fender® Tweed Champ®
57DLUX - Based on a '57 Fender Tweed Deluxe
59BMAN - Based on a '59 Fender Tweed Bassman®
65TWIN - Based on a '65 Fender Blackface Twin Reverb®
65DLXR - Based on a '65 Fender Blackface Deluxe Reverb®
68PLEX - Based on a '68 Marshall® 100 Watt Super Lead (plexi)
77MSTR - Based on a '77 Marshall Master Volume
800JCM - Based on an '83 Marshall JCM800
900JCM - Based on a '93 Marshall JCM900
VXAC15 - Based on a '62 Vox® AC15
TOPBST - Based on a '63 Vox AC30 Top Boost
HIWTAG - Based on a '69 Hiwatt® Custom 100 DR103
MARK2C - Based on an '81 Mesa Boogie® Mark II C
RECTFR - Based on an '01 Mesa Boogie Dual Rectifier
MATCH - Based on a '96 Matchless™ HC30
DIGSLO - DigiTech® Solo
DIGMTL - DigiTech Metal
DIGBRT - DigiTech Bright
DIGCLN - DigiTech Clean
DIGGAN - DigiTech Gain
ACDRED - Dreadnaught acoustic
DIRECT - No amp model

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Cabinet - Knob 2 selects the speaker Cabinet model.

CHMP18 - Based on a 1x8 '57 Fender® Tweed Champ®

DLX112 - Based on a 1x12 '57 Fender Tweed Deluxe®

TWN212 - Based on a 2x12 '65 Fender Blackface Twin Reverb®

BRT212 - Based on a 2x12 '63 Vox® AC30 Top Boost w/ Jensen® Blue Backs

BMN410 - Based on a 4x10 '59 Fender Tweed Bassman®

CLS412 - Based on a 4x12 Marshall® 1969 Straight w/ Celestion® G12-T70

GRN412 - Based on a 4x12 Marshall 1969 Slant w/ Celestion 25W Greenbacks

VTG412 - Based on a 4x12 Johnson® Straight w/ Celestion Vintage 30's

DIGSLO - 4x12 DigiTech® Solo

DIGBRT - 2x12 DigiTech Bright

DIGMTL - 4x12 DigiTech Metal

DIGRCK - 4x12 DigiTech Rock

DIGALT - 4x12 DigiTech Alt Rock

DIGVTG - 4x12 DigiTech Vintage

DIRECT - No cabinet model

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Amp Gain - Knob 3 adjusts the Gain (distortion) for the selected Amp model (not available for Acoustic). The Gain parameter ranges from 0 to 99.

Amp Level - Knob 4 adjusts the Level (volume) of the selected Amp model. The Level parameter ranges from 0 to 99.

EQ

The RP250's EQ helps further shape your tone with Bass, Midrange, and Treble controls. To help get you started, there are four preset EQ curves: Mid Boost (MIDBST), Scoop (SCOOP), Bright (BRIGHT), and Warm (WARM) that can be selected using **Knob 1**. Bass, Midrange, and Treble parameters range from -12dB to +12dB.

EQ Model - Knob 1 selects between 4 different EQ modes (Mid Boost, Scoop, Bright, and Warm), each with different frequency centers for Mid and Treble. Pressing this knob turns the EQ on and off.

Bass - Knob 2 adjusts the amount of low end level (Bass).

Mid - Knob 3 adjusts the midrange level.

Mid Freq *(X-Edit™ only)* - This parameter selects the frequency that the Mid parameter adjusts. Ranges from 300 Hz to 5000 Hz.

Treb - Knob 4 adjusts the high end level (Treble).

Treb Freq *(X-Edit only)* - This parameter selects the frequency that the Treb parameter adjusts. Ranges from 500 Hz to 8000 Hz.

Noise Gate

A **Noise Gate** is designed to eliminate noise while you are not playing, or provide an auto volume swell effect.

Gate Model - Knob 1 selects between the DigiTech® noise gate or the volume swell effect. Values include: GATE (Selects the noise gate) and SWELL (Selects the volume swell effect.) Press this knob to turn the noise gate on and off.

Threshold/Swell Sensitivity - Knob 2 sets the signal strength (Threshold) required to

open or close the Noise Gate, or the Swell Sensitivity for the Auto Swell. Both parameters range from 0 (opens easily/high sensitivity) to 99 (requiring strong signals to open/high sensitivity).

Attack Time - Knob 3 sets the attack time. Ranges from 0 (shorter attack time) to 99 (longer attack time).

Release - Knob 4 sets the Release parameter. Ranges from 0 to 99.

Attenuation *(X-Edit™ only)* - Sets the Attenuation parameter. Ranges from 0 to 99.

Chorus/FX

The Chorus/FX row in the RP250 is a multi-function module, allowing you to select Effect models such as Chorus, Flanger, Phaser, Tremolo, Panner, Vibrato, Rotary Speaker, YaYa™, AutoYa™, SynthTalk™, Envelope Filter (auto wah), Detune, Pitch Shift, and Whammy™ effects. When the Chorus/FX row is selected, **Knob 1** is used to choose the Effect model. Press this knob to turn these Effect models on and off. Only one of the effects in this row can be used at a time. After selecting the type of effect in this module, **Knobs 2-4** can then be used to adjust the individual parameters associated with the selected effect. The following list describes each Effect model and its parameters in more detail:

Chorus

A Chorus adds a short delay to your signal. The delayed signal is modulated in and out of tune and then mixed back with the original signal to create a thicker sound. The RP250 includes the following Chorus Effect models: CE CHS (based on the classic Boss® CE-2 Chorus), CHORUS (DigiTech®'s Dual Chorus), and MCHORS (DigiTech's famous Multi Chorus®).

Speed - Knob 2 adjusts the rate (Speed) of the modulation. Ranges from 0 to 99.
Depth - Knob 3 adjusts the Depth of the modulation. Ranges from 0 to 99.

Level - Knob 4 controls the level of the effect (DigiTech Chorus models only). Ranges

from 0 to 99.

Waveform *(X-Edit™ only for DigiTech Chorus models)* - Selects a waveform: TRIANG, SINE, or SQUARE.

Flanger
A Flanger uses the same principle as a Chorus but uses a shorter delay time and adds regeneration (or repeats) to the modulating delay. This results in an exaggerated up and down sweeping motion to the effect. The RP250 includes the following Flanger Effect models: FLANGR (the DigiTech Flanger), and MXFLGR (based on an MXR® Flanger).

Knobs 2, **3**, and **4** have the following functions for the Flanger models:

Flanger Model	Knob 2 (Speed)	Knob 3 (Depth)	Knob 4 (Regen)	P5 (X-Edit™ only)	P6 (X-Edit only)
FLANGR	Speed	Depth	Regen	Waveform	Level
MXFLGR	Speed	Width	Regen	Manual	--

Phaser (PHASER)
A phaser splits the incoming signal, and then changes the phasing of the signal. This signal is then taken in and out of phase and mixed back in with the original signal. As the phasing changes, different frequencies get canceled resulting in a warm sort of twisting sound.

Knobs 2, **3**, and **4** have the following functions for the two Phaser models:

Speed - Knob 2 adjusts the rate (Speed) of the modulation. Ranges from 0 to 99.

Depth - Knob 3 adjusts the Depth of the modulation. Ranges from 0 to 99.

Regeneration - Knob 4 controls the regeneration of the effect. Ranges from 0 to 99.

Waveform *(X-Edit™ only)* - Selects a waveform: TRIANG, SINE, or SQUARE.

Level *(X-Edit only)* - Controls the level of the effect. Ranges from 0 to 99.

Vibrato (VIBRAT)
A Vibrato effect modulates the pitch of the incoming signal at an even rate.

Speed - Knob 2 adjusts the rate (Speed) at which the pitch modulates. Ranges from 0 to 99.

Depth - Knob 3 adjusts the intensity (Depth) of the modulating pitch. Ranges from 0 to 99.

Rotary Speaker (ROTARY)
Rotary Speaker is an emulation of a device that included a spinning horn and woofer. The rotation of these two speakers produced an interesting combination of the sound panning from side to side. This produced a slight pitch change due to the speed of the sound coming towards, and then going away from the listener.

Speed- Knob 2 adjusts the rate (Speed) of the spinning speakers. Ranges from 0 to 99.

Intensity - Knob 3 controls the intensity of the effect. Ranges from 0 to 99.

Doppler - Knob 4 controls the Pitch Shift effect that is the ratio between the horn and the rotor positions. Ranges from 0 to 99.

Crossover *(X-Edit™ only)*- Selects the crossover frequency between the horn and rotor. Ranges from 0 (200 Hz) to 99 (1600 Hz).

VibroPan (VIBPAN)
A vibrato is an effect that modulates the pitch of the incoming signal. This will take the whole signal slightly in and out of tune at a steady pace. The VibroPan also incorporates an automatic panner with the vibrato effect that creates a lush chorus-like sound.

Speed - Knob 2 adjusts how fast the signal is being modulated.

Depth - Knob 3 adjusts the amount of pitch change.

Vibrato/Pan- Knob 4 adjusts the amount of panning incorporated with the vibrato effect. When the "VIB" control is at "0", this effect is a standard vibrato. As the Level parameter is turned up, the phase difference of the vibrato signal sent to the two channels is changed until a full stereo image is obtained at "99".

Waveform *(X-Edit™ only)* - Selects a waveform: TRIANG, SINE, or SQUARE.

Tremolo (TRMOLO)
A Tremolo effect modulates the volume of the signal at an even rate.

Speed - Knob 2 adjusts the rate (Speed) at which the volume modulates. Ranges from 0 to 99.

Depth - Knob 3 adjusts the intensity (Depth) of the modulating volume. Ranges from 0 to 99.

Waveform - Knob 4 selects a waveform: TRIANG, SINE, or SQUARE.

Panner (PANNER)
An Auto Panner modulates the sound from left to right at an even rate.

Speed - Knob 2 adjusts the rate (Speed) at which the signal pans from side to side. Ranges from 0 to 99.

Depth - Knob 3 adjusts the intensity (Depth) of the changing pan. Ranges from 0 to 99.

Waveform - Knob 4 selects a waveform: TRIANG, SINE, or SQUARE.

Envelope Filter (ENVLOP)
The Envelope Filter is a dynamic Wah effect that alters your sound based upon how hard you play.

Sensitivity - Knob 2 adjusts the sensitivity or the input signal required to trigger the Wah effect. Ranges from 0 to 99.

Range - Knob 3 controls the range of the Envelope effect. Ranges from 0 to 99.

AutoYa™ (AUTOYA)
An AutoYa combines the characteristics of a Wah and a Flanger together creating an almost human vowel characteristic as if the guitar were saying "Yah." The AutoYa™ automatically provides this animation to the sound at an even rate.

Speed - Knob 2 adjusts the speed of the AutoYa sweep. Ranges from 0 to 99.

Intensity - Knob 3 adjusts the intensity of the AutoYa effect. Ranges from 0 to 99.

Range - Knob 4 adjusts the throaty quality of the AutoYa effect. Ranges from 0 to 49.

YaYa™ (YAYA)
The YaYa is another effect exclusive to DigiTech® products. Like the AutoYa™, it combines the characteristics of a wah and a flanger together providing a unique talk box type of effect, but is controlled by the Expression Pedal.

Pedal - Knob 2 adjusts the Ya pedal position. Ranges from 0 to 99.

Intensity - Knob 3 adjusts the intensity of the YaYa effect. Ranges from 0 to 99.

Range - Knob 4 adjusts the throaty quality of the YaYa effect. Ranges from 0 to 49.

Step Filter (STPFLT)
The Step Filter is like an automatic "random wah" with a square waveform.

Speed - Knob 2 adjusts the speed of the Wah effect. Ranges from 0 to 99.

Intensity - Knob 3 controls the intensity of the Wah effect. Ranges from 0 to 99.

DigiTech Whammy™ (WHAMMY)
The DigiTech Whammy™ is an effect that uses an Expression Pedal to bend the pitch of the incoming signal, or add a bendable harmony with the original signal. As the Pedal is moved, the note bends either up or down. When DigiTech Whammy is selected, it is automatically placed before the Amp modeling as shown in the block diagram on page 19.

Shift Amount - Knob 2 selects the interval and direction of the pitch bend. Choices are as follows:

Whammy™ (no Dry Signal)
OCT UP (1 octave above)
2OCTUP (2 octaves above)
2ND DN (a second below)
RV2NDN (a second below reversed pedal action)
4TH DN (a fourth below)
OCT DN (an octave below)
2OCTDN (2 octaves below)
DIVEBM (Dive Bomb)

Harmony Bends (Dry Signal Added)
M3>MJ3 (a minor third to a Major third)
2NDMJ3 (a second above to a Major third above)
3RD4TH (a third above to a fourth above)
4THSTH (a fourth above to a fifth above)
5THOCT (a fifth above to an octave above)
HOCTUP (one octave above)
HOCTDN (one octave down)
OCTU>D (octave up/down)

Pedal Position - Knob 3 provides a manual control of the Whammy pedal position. Ranges from 0 to 99.

Mix - Knob 4 adjusts the Whammy mix. Ranges from 0 to 99.

Pitch Shift (PITCH)
A Pitch Shifter copies the incoming signal, then shifts the pitch of the copy to a different note. The shifted note is then mixed back with the original signal, sounding as if two guitars were playing different notes.

Shift Amount - Knob 2 selects the interval of the shifted pitch. Ranges from -24 (2 octaves below) to 24 (2 octaves above).

Mix - Knob 4 controls the mix level of the shifted pitch. Ranges from 0 to 99.

Detune (DETUNE)
A Detuner makes a copy of your incoming signal, takes the copied signal slightly out of tune from the original, then mixes the two signals together. The result is a doubling type of effect as if two guitars were playing the same part together.

Shift Amount - Knob 2 adjusts the amount of pitch difference applied to the copied signal. Ranges from -24 to 24 cents.

Level - Knob 4 controls the mix of the detuned note. Ranges from 0 to 99.

Intelligent Pitch Shifting (IPS)
Intelligent Pitch Shifting makes a copy of the incoming signal, and then changes the pitch of the copied note to a diatonically correct interval specified by the Amount parameter. An Intelligent Pitch Shifter sharpens or flattens the shifted pitch in order to keep the specified interval within the selected key and scale creating a true harmony.

Shift - Knob 2 selects the *amount* or *harmony interval* for the Intelligent Pitch Shifter. Interval choices include:

OCT DN (octave down)	2ND UP (a second above)
7TH DN (a seventh below)	3RD UP (a third above)
6TH DN (a sixth below)	4TH UP (a fourth above)
5TH DN (a fifth below)	5TH UP (a fifth above)
4TH DN (a fourth below)	6TH UP (a sixth above)
3RD DN (a third below)	7TH UP (a seventh above)
2ND DN (a second below)	OCT UP (an octave above)

Key - Knob 3 selects the musical key that the IPS uses. Key choices range from the Key of E (KEY E) through the Key of Eb (KEY Eb).

Scale - Knob 4 selects the scale the IPS will use. Scale choices include: Major (MAJOR), Minor (MINOR), Dorian (DORIAN), Mixolydian (MIXLYD), Lydian (LYDIAN), and Harmonic Minor (HMINOR).

Level *(X-Edit™ only)* - Adjusts the IPS Level (IPSLVL) of all the pitch-altering effects in this module. Ranges from 0 to 99.

Delay

Delay is an effect that will record a portion of the incoming signal, and then play it back a short time later. The recording can repeat just once or several times.

Delay Model - Knob 1 selects one of the 5 different Delay models. Values include: ALGDLY (DigiTech® Analog Delay), DIGDLY (DigiTech Digital Delay), MODDLY (DigiTech Modulated Delay), PNGDLY (DigiTech Pong Delay), and TAPDLY (DigiTech Tape Delay). Press this knob to turn the Delay models on and off.

Knobs 2, **3**, and **4** have the following functions for the various Delay models:

Delay Model	Knob 2 (Time)	Knob 3 (Repeats)	Knob 4 (Level)	P4 (X-Edit™ only)	P5 (X-Edit only)
ALGDLY	Time	Repeats	Delay Level	--	--
DIGDLY	Time	Repeats	Level	Duck Thresh	Duck Level
MODDLY	Time	Repeats	Delay Level	Depth	--
PNGDLY	Time	Repeats	Delay Level	Duck Thresh	Duck Level
TAPDLY	Time	Repeats	Level	Wow	Flutter

Time - Knob 2 adjusts the length of time between repeats. Ranges from 10 ms to 5 seconds.

Repeats - Knob 3 adjusts the number of times the delayed signal will repeat. Ranges from 0 to 99/RPTHLD (Repeat Hold).

Delay Level / Level - Knob 4 adjusts the volume of the delayed signal. Ranges from 0 to 99.

Duck Thresh *(X-Edit™ only)* - Adjusts the level the input signal must reach before the delayed signal is attenuated. Ranges from 0 to 99.

Depth *(X-Edit only)* - Adjusts the intensity of the modulation (chorusing) in the delay repeats. Ranges from 0 to 99.

Wow *(X-Edit only)* - Adjusts low frequency modulation (below about 6 Hz) that would be caused by tape speed variation. Ranges from 0 to 99.

Duck Level *(X-Edit only)* - Adjusts the amount of attenuation applied to the delayed signal. Ranges from 0 to 99.

Flutter *(X-Edit only)* - Adjusts a higher frequency modulation (from about 6 to 30 Hz) that would be caused by tape speed variation. Ranges from 0 to 99.

Reverb

Using reverb in recorded program material gives the listener a sense that the material is being performed in an actual room or hall. It is this similarity to actual acoustic spaces that makes reverberation a useful tool in recorded music. The RP250 features genuine Lexicon® reverbs, whose rich, lush effects have been heard in countless songs, soundtracks, and live performances for decades.

Reverb Model

Knob 1 selects the Reverb model or acoustic space. Press this knob to turn the Reverb models on and off. The following models are available:

TWINRV - Based on a Fender® Twin Reverb
LEXAMB - Lexicon® Ambience
LEXSTD - Lexicon Studio
LEXROM - Lexicon Room
LEXHAL - Lexicon Hall
EMTPLT - Based on an EMT240 Plate

Reverb Model	Knob 2 (Decay)	Knob 3 (Liveliness)	Knob 4 (Reverb Level)	P4 (X-Edit™ only)
TWINRV	--	--	Reverb	--
LEXAMB	Decay	Liveliness	Reverb Level	Predelay
LEXSTD	Decay	Liveliness	Reverb Level	Predelay
LEXROM	Decay	Liveliness	Reverb Level	Predelay
LEXHAL	Decay	Liveliness	Reverb Level	Predelay
EMTPLT	Decay	Liveliness	Reverb Level	Predelay

Decay - Knob 2 adjusts the length of time the reverb is audible. Ranges from 0 to 99.

Liveliness - Knob 3 adjusts the amount of high frequency content in the reverberation tails. Ranges from 0 to 99.

Reverb / Reverb Level - Knob 4 adjusts the volume of the reverb signal. Ranges from 0 to 99.

Predelay *(X-Edit™ only)* - Adjusts the amount of time it takes for the initial sound to reach the first reflective surface in the simulated environment. Ranges from 0 to 15.

Section Four - Other Functions

Drum Machine

The RP250 includes a built-in drum machine loaded with 60 useful patterns and 5 metronome settings that are easily accessible at the touch of a button (the **Drums** button, specifically). Pressing the **Drums** button will enable the drum machine and start playback of the selected drum pattern (except when in Store or Bypass mode). When the **Drums** row is selected (using the **Edit** buttons), **Knob 1** scrolls through the first patterns for each drum style, **Knob 2** scrolls through all the drum patterns, **Knob 3** adjusts the Tempo of the drum pattern and **Knob 4** adjusts the Level of the drum pattern. Press the **Drums** button again to stop playback of the drum loop.

Drum Pattern List

BEATS (8th beat)	1-5	JAZZ	1-4
BEATS (16th beat)	6-8	HIPHP	1-4
ROCK	1-8	WORLD	1-4
HROCK	1-8	MET	4/4
METAL	1-8	MET	3/4
BLUES	1-8	MET	5/8
GROOV	1-4	MET	7/8
CNTRY	1-4	MET	MTRNOM

Aux Input

The Aux Input allows you to connect an MP3 or CD player to the RP250 and jam with your favorite artists. The signal from your MP3 or CD player is output through the left, right, and headphone outputs of the RP250. To use the Aux Input, connect the headphone output of your MP3 or CD player to the **Aux Input** on the rear panel of the RP250 using an 1/8" stereo cable, and press play on your MP3 or CD player. Use the playing device's volume control and the RP250's **Master Level** knob to balance the levels.

Expression Pedal

The Expression Pedal on the RP250 can be linked to control the RP250's Volume, Wah, Whammy™, YaYa™, or almost any of the RP250's other parameters in real time with your foot. When a parameter has been linked to the Expression Pedal, a minimum (heel) and maximum (toe) value can also be specified. Apply extra pressure to the toe of the Expression Pedal to activate the V-switch, and the Expression Pedal switches between the linked parameter and the Wah. The procedure for linking a parameter to the Expression Pedal is as follows:

1. Press either **Edit** button until the Expression row has been selected (indicated by the LED lighting on the Expression row). EXP appears in the display.
2. Rotate **Knob 2** until the desired parameter appears in the Display. See page 44 for a complete list of parameters that can be linked to the Expression Pedal.
3. Rotate **Knob 3** to select the minimum (heel) value the assigned parameter will reach with the Expression Pedal in the toe up position.
4. Rotate **Knob 4** to select the maximum (toe) value the assigned parameter will reach with the Expression Pedal in the toe down position.
5. Store your Expression Pedal assignment to your preset. See page 17 for more information on the storing procedure.

Factory Reset

This function resets the RP250 to its original factory settings. This procedure erases all custom User presets, and recalibrates the Expression Pedal.

ATTENTION: Performing this function will erase all user-programmed data. All such data will be lost forever! Be sure you want to erase the memory and start fresh before continuing with this procedure.

The procedure for performing a Factory Reset is as follows:

1. Press and hold the **Store** button while powering up the RP250.
2. When the display prompts you with FACRST, release the **Store** button, which is now flashing.
3. Press and hold the flashing **Store** button for 3 seconds until RSTORD appears in the display and release (The Factory Reset procedure takes approximately 20 seconds). The Expression Pedal calibration procedure now commences.

Expression Pedal Calibration

The Expression Pedal on the RP250 needs to be recalibrated for use after a factory reset has been performed. This calibration procedure is automatically entered after a factory reset procedure. (You can also initiate the calibration procedure by pressing and holding both **Footswitches** for approximately 5 seconds.) In the event the Pedal's calibration fails, or if the Pedal does not function properly, it can be re-calibrated using the Pedal Calibration procedure. This will not erase the User presets. The procedure for Calibrating the Expression Pedal is as follows:

1. Press and hold the **Up/Down Footswitches** until PDLCAL appears in the display (BYPASS and TUNER will be displayed before PDLCAL is accessed)
2. When the Display prompts you with TOE DN, rock the **Expression Pedal** forward (toe down) and press either **Footswitch**.
3. When the Display prompts you with TOE UP, rock the **Expression Pedal** back (toe up) and press either **Footswitch**.
4. The Display now prompts you to calibrate the V-Switch sensitivity (V SWxxx), where xxx is the current V-Switch threshold. Rock the **Expression Pedal** forward and press firmly on the toe once to turn the V-Switch on (WAH ON), and again to turn the V-Switch off (WAHOFF).
5. If the V-Switch is too sensitive, press the right **Up Footswitch** to raise the threshold (range is 0-200). Keep testing the V-Switch sensitivity and adjust the threshold until it only engages when you want it to (too sensitive a setting will lead to the V-Switch falsely triggering on or off when using the Expression Pedal).
6. When the V-Switch sensitivity is set to your satisfaction, press both **Up/Down Footswitches** simultaneously to exit.

Note: If the Display shows ERROR, an error has occurred and steps 2 through 5 should be repeated.

Section 5 - Appendix

Specifications

General Specifications

A/D/A Converter: 24-bit high performance audio

Sampling Frequency: 44.1 kHz

DSP Section: AudioDNA2™ DSP Processor

Simultaneous Effects: 11

Preset Memory: 60 User Presets (1-60) / 60 Factory Presets (61-120)

Drum Machine: 60 Patterns

Dimensions: 8.25" Length x 9.375" Width x 2.125" Height

Unit Weight: 3.3 lbs.

Analog Input Connections:

Guitar Input: 1/4" Unbalanced (TS)

Input Impedance: 500k Ohms

Aux Input: 1/8" Stereo (TRS)

Analog Output Connections:

Left/Right Outputs: 1/4" Impedance Unbalanced

Left/Right Output Impedance: 500 Ohms per side

Maximum Output: +10dBu

Headphones: 1/8" Stereo (TRS) – 13.6mW per channel @ 50 Ohms

Digital Connections:

Universal Serial Bus (USB): Type B, supports USB2.0 Full Speed

RP250 USB Recording Specifications:

Sample Rate: 44.1 kHz

Bit depth: supports 16-bit or 24-bit (depends on setup in Recording Software)

Power Requirements:

US and Canada: 120 VAC, 60 Hz Adapter: PS0913B-120

Japan: 100 VAC, 50/60 Hz Adapter: PS0913B -100

Europe: 230 VAC, 50 Hz Adapter: PS0913B -230

UK: 240 VAC, 50 Hz Adapter: PS0913B -240

Minimum Windows® PC Computer System Requirements:

Windows® XP w/Service Pack 2 and .NET 2.0 installed

500 MHz processor speed (1.2 GHz recommended)

128 MB RAM (512MB recommended)

Minimum Mac Computer System Requirements:

OS 10.4 or higher

450 MHz CPU

256 MB RAM

Expression Pedal - Assignable Parameters

Volume / Wah Models

All Volume / Wah Models	On/Off	Wah Minimum	Wah Maximum	Wah Level

Comp / Limiter Models

DigiTech Compressor	On/Off	Sustain	Tone	Level	Attack
Boss CS-2 Compressor/Sustainer	On/Off	Sustain	Attack	Level	

Distortion Models

Ibanez TS-9 Tube Screamer	On/Off	Drive	Tone	Level			
Ibanez TS-808 Tube Screamer	On/Off	Overdrive	Tone	Level			
Guyatone Overdrive OD-2	On/Off	Drive		Level			
DOD 250 Overdrive/Preamp	On/Off	Gain		Level			
ProCo Rat	On/Off	Distortion	Filter	Level			
MXR Distortion +	On/Off	Distortion		Output			
Boss DS-1 Distortion	On/Off	Gain	Tone	Level			
DigiTech Grunge	On/Off	Grunge	Face	Loud	Butt		
Boss MT-2 Metal Zone	On/Off	Gain	Mid Level	Level	Low	Mid Freq	High
DigiTech Death Metal	On/Off	Low	Mid	Level	High		
DOD Gonkulator Ring Mod	On/Off	Gunk (Dist Gain)	Smear (Ring Mod Level)	Suck (Dist Level)	Heave (Output Level)		
Arbiter Fuzz Face	On/Off	Fuzz		Volume			
EH Big Muff Pi	On/Off	Sustain	Tone	Volume			

AMP

All Amp models	On/Off	Amp Gain	Amp Level

EQ

3 band EQ	On/Off	Bass	Midrange	Treble

Noise Gate / Auto Swell Models

DigiTech Noise Gate	On/Off	Threshold	Attack Time	Release	Attenuation
DigiTech Auto Swell	On/Off	Swell Sensitivity	Attack Time	Release	Attenuation

Chorus Models

Boss CE-2 Chorus	On/Off	Speed	Depth		
DigiTech Dual Chorus	On/Off	Speed	Depth	Level	Waveform
DigiTech Multi Chorus	On/Off	Speed	Depth	Level	Waveform

Flanger Models

DigiTech Flanger	On/Off	Speed	Depth	Regen	Waveform	Level
MXR Flanger	On/Off	Speed	Width	Regen	Manual	

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Phaser Models

DigiTech Phaser	On/Off	Speed	Depth	Regen	Waveform	Level

Vibrato / Rotary Models

DigiTech Vibrato	On/Off	Speed	Depth		
DigiTech Rotary	On/Off	Speed	Intensity	Doppler	Crossover
DigiTech Vibro/Pan	On/Off	Speed	Depth	Vibrato/Pan	Waveform

Tremolo/Panner Models

DigiTech Tremolo	On/Off	Speed	Depth	Waveform
DigiTech Panner	On/Off	Speed	Depth	Waveform

Envelope / Special Models

DigiTech Envelope Filter	On/Off	Sensitivity	Range	
DigiTech Auto Ya	On/Off	Speed	Intensity	Range
DigiTech YaYa	On/Off	Pedal	Intensity	Range
DigiTech Step Filter	On/Off	Speed	Intensity	

Pitch Models

DigiTech Whammy	On/Off	Shift Amount	Pedal Position	Mix	
DigiTech Pitch Shift	On/Off	Shift Amount		Mix	
DigiTech Detune	On/Off	Shift Amount		Level	
DigiTech IPS	On/Off	Shift Amount	Key	Scale	Level

Delay Models

DigiTech Analog Delay	On/Off	Time	Repeats	Delay Level		
DigiTech Digital Delay	On/Off	Time	Repeats	Level	Duck Thresh	Duck Level
DigiTech Modulated Delay	On/Off	Time	Repeats	Delay Level	Depth	
DigiTech Pong Delay	On/Off	Time	Repeats	Delay Level	Duck Thresh	Duck Level
DigiTech Tape Delay	On/Off	Time	Repeats	Level	Wow	Flutter

Reverb Models

Fender Twin Reverb	On/Off			Reverb	
Lexicon Ambience	On/Off	Decay	Liveliness	Reverb Level	Pre Delay
Lexicon Studio	On/Off	Decay	Liveliness	Reverb Level	Pre Delay
Lexicon Room	On/Off	Decay	Liveliness	Reverb Level	Pre Delay
Lexicon Hall	On/Off	Decay	Liveliness	Reverb Level	Pre Delay
EMT 240 Plate	On/Off	Decay	Liveliness	Reverb Level	Pre Delay

Tone Library

1	Overdrive	OVRDRV	16	Rock Wah	RCKWAH
2	Rock 1	ROCK 1	17	Chunky	CHUNKY
3	Rock 2	ROCK 2	18	Smooth	SMOOTH
4	Blues 1	BLUES 1	19	Heavy	HEAVY
5	Blues 2	BLUES 2	20	Clean 1	CLEAN1
6	Metal 1	METAL1	21	Clean 2	CLEAN2
7	Metal 2	METAL2	22	British 1	BRTSH1
8	Country 1	CNTRY1	23	British 2	BRTSH2
9	Country 2	CNTRY2	24	American 1	AMRCN1
10	Warm Drive	WRMDRV	25	American 2	AMRCN2
11	Crunch	CRUNCH	26	Tube Drive	TUBDRV
12	Texas Tone	TEXTON	27	Distortion	DSTRTN
13	Rockabilly	RCKBLY	28	Scooped	SCOOPD
14	Solo 1	SOLO 1	29	Punchy	PUNCHY
15	Solo 2	SOLO 2	30	Bright Clean	BRICLN

1	Chorus	CHORUS	16	Chorus + Digital Delay	CHRDLY
2	Phaser	PHASER	17	Chorus + Delay + Reverb	CHDLRV
3	Flanger	FLANGER	18	Flanger + Analog Delay	FLGDLY
4	Pitch	PITCH	19	Phaser + Tape Delay	PHSDLY
5	Tremolo	TREMLO	20	Phaser + Mod Delay	PHMDLY
6	Rotary	ROTARY	21	Phaser + Room Reverb	PHSRVB
7	Envelope Filter	ENVFLT	22	Digital Delay + Hall Reverb	DDLYRV
8	Digital Delay	DDELAY	23	Analog Delay + Spring	DLYSPG
9	Analog Delay	ADELAY	24	Chorus + Hall Reverb	CHRRVB
10	Pong Delay	PDELAY	25	Pong Delay + Hall Reverb	PNGHAL
11	Mod Delay	MDELAY	26	Tape Delay + Spring Reverb	TAPSPG
12	Tape Delay	TAPDLY	27	Tremolo + Tape Delay	TRMTAP
13	Hall Reverb	HALRVB	28	Pitch + Digital Delay	PCHDLY
14	Plate Reverb	PLTRVB	29	Mod Delay + Plate Reverb	MODPLT
15	Spring Reverb	SPGRVB	30	Rotary + Tape Delay	ROTDLY

Preset List

1 / 61	PLEXIDRV	PLxIDRV
2 / 62	COMP CLEAN	CMPCLN
3 / 63	SOLO DELAY	SOLIDLY
4 / 64	BOOGIE MAN	BOOGMN
5 / 65	COOL CHORUS	COOLCH
6 / 66	RECTIFIED	RECTFI
7 / 67	CLASSIC STACK	STACK
8 / 68	CLEAN COMBO	CLNCMB
9 / 69	PRIDE DELAY	PRIDE
10 / 70	HILLBILLY	HILBLY
11 / 71	SO DELUXE	SOIDLUx
12 / 72	STEVIE RAY	STVRAY
13 / 73	WHAMMY	WHAMMY
14 / 74	BASS MAN	BASMAN
15 / 75	DC/AC	IC/AC
16 / 76	SANDMAN	SNIMAN
17 / 77	JUMP PANEL	JMPPNL
18 / 78	TWIN REVERB	TWNRVI
19 / 79	METAL HEAD	MTLHED
20 / 80	CHICKIN PICKIN	CHKPKN
21 / 81	CRUNCHY	CRNCHY
22 / 82	MR CLEAN	MRCLEN
23 / 83	LA GREASER	GREASR
24 / 84	BIG N BLUE	BIGBLU
25 / 85	SMOOTH JAZZ	SMTHJZ
26 / 86	PUNK	PUNK
27 / 87	E DORIAN	EIORIN
28 / 88	ACOUSTIC	ACOUST
29 / 89	RHAPSODY	RHPSIY
30 / 90	CLEAN FUNK	CLNFNK
31 / 91	SYNTH SWELL	SWELL
32 / 92	ANALOG BOY	ALGBOY
33 / 93	BLUES DELAY	BLUILY
34 / 94	BIG ROOM	BIGROM
35 / 95	DER YA	IER YA
36 / 96	FUZZ KING	FUZKNG
37 / 97	WAHS UP	WAHSUP
38 / 98	CHIMEY	CHIMEY
39 / 99	BRIT 45	BRIT45
40 / 100	KILLER	KILLER
41 / 101	OCTIVED	OCTIVI
42 / 102	FLANGTASTIC	FLNTAS
43 / 103	HENDRIX	HNIRIx
44 / 104	BRIT COMBO	BRTCMB
45 / 105	HAIR DAY	HAIRIY
46 / 106	GUITAR > BASS	GTRBAS
47 / 107	TAPED OUT	TAPOUT
48 / 108	SUPER CLYDE	SUPCLY
49 / 109	BLUES DRIVE	BLUIRV
50 / 110	CLEAN N BRIGHT	CLNBRT
51 / 111	COWBOY	COWBOY
52 / 112	STELLAR	STELLR
53 / 113	OLD SCHOOL	OLISCL
54 / 114	PERTY	PERTY
55 / 115	STEPPIN	STEPPN
56 / 116	LED ZEP	LEIZEP
57 / 117	MOSH MELLOW	MSHMLO
58 / 118	BIG STRUM	BGSTRM
59 / 119	WOMAN	WOMAN
60 / 120	SATCH	SATCH

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